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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,386	02/11/2002	John M. North	HFC-149US (20104.57)	3801
26418	7590	01/11/2005	EXAMINER	
REED SMITH, LLP ATTN: PATENT RECORDS DEPARTMENT 599 LEXINGTON AVENUE, 29TH FLOOR NEW YORK, NY 10022-7650			GOFF II, JOHN L	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,386

Applicant(s)

NORTH ET AL.

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 6/1/04.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meeker (U.S. Patent 5,665,185) in view of Mavlyanova et al. (Abstract of SU 1754468) and Wiegand (U.S. Patent 4,088,805).

Meeker discloses an apparatus for preparing a laminate containing chopped glass fiber that is used to make an automobile headliner. Meeker teaches the apparatus comprises a nonwoven scrim supply, a thermoplastic barrier film supply, rollers capable of drawing the scrim

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and film together as a composite therethrough, a glass fiber chopper capable of depositing glass fiber on the barrier film, an oven with heating elements located at the upperside of the oven capable of heating the composite (e.g. the fiberglass side of the composite) under pressure, and conventional cooling means capable of cooling the composite under pressure to adhere the glass fiber to the barrier film (Figures 1 and 2 and Column 2, lines 20-28, 37-39, 42-46, and 59-63 and Column 3, lines 3-7, 30-35, and 41-46). Meeker is silent as to a thermoplastic adhesive dispenser capable of dispensing adhesive on the barrier film. However, it is noted that while Meeker teaches the glass fibers adhere to the thermoplastic barrier film without adhesive, Meeker does not exclude depositing a powdered adhesive along with the chopped glass fibers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the apparatus taught by Meeker a thermoplastic adhesive dispenser as it was well known in the art to include a powdered adhesive with the chopped glass fibers for improved adhesiveness between the fibers and the thermoplastic barrier film as shown for example Mavlyanova et al.

Regarding the cooling means, it is noted Meeker teaches using conventional cooling means such as, for example, air cooling. However, it would have been well within the purview of one of ordinary skill in the art at the time the invention was made to use as the cooling means in the apparatus taught by Meeker any of the well known and conventional cooling means in the art such as cooling nip rollers or air cooling as both were well known alternative cooling means as shown for example by Wiegand.

Regarding the limitation to not force the fiberglass into the barrier film, this limitation relates to "intended use" and "product worked upon" wherein the apparatus disclosed in the prior

art must merely be capable of performing this limitation (See MPEP 2114 and 2115), it being noted the apparatus taught by Meeker et al. as modified by Mavlyanova et al. and Wiegand clearly has the capability of not forcing the fiberglass into the barrier film by controlling the amount of pressure, heating, cooling, etc. applied.

Mavlyanova et al. disclose a process for forming a fiber reinforced thermoplastic sheet comprising providing a thermoplastic barrier film, depositing powdered adhesive (using a powdered thermoplastic adhesive dispenser) and chopped glass fibers on the barrier film to form a composite, and then applying heat and pressure to the composite to bond the fibers to the film and form a fiber reinforced thermoplastic sheet (See the abstract).

Wiegand disclose an apparatus for forming a composite laminate comprising contacting the composite materials together followed by heating under pressure and cooling under pressure where the cooling under pressure is performed by any of the alternative methods known in the art such as cooling nip rolls, water bath, forced air cooling, ambient cooling, etc. (Figure 1 and Column 2, lines 54-66).

Response to Arguments

5. Applicant's arguments filed 6/1/04 have been fully considered but they are not persuasive. Applicants argue there is no teaching or suggestion of heating elements located only on the upperside of the oven. The claims are not commensurate in scope with this argument, i.e. the claims do require heating elements located only on the upperside of the oven. Applicants further argue there is no reason to use the powdered adhesive of Mavlyanova et al. in a chopped fiberglass layer in Meeker. As noted in the rejection, the technique of including a powdered

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adhesive within the chopped glass fibers of a laminate of the type shown by Meeker for improved adhesiveness between the fibers and the thermoplastic barrier layer was well known in the art as shown for example by Mavlyanova et al.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

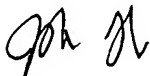
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff



JEFF H. OSTERHOUT
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